

FSA No.57E

FSA No.57E Orbit 1.5E ZS Tapered Headset User Manual

Model: No.57E

INTRODUCTION

This manual provides detailed instructions for the proper installation, operation, and maintenance of your FSA No.57E Orbit 1.5E ZS Tapered Headset. Designed for bicycles with a 1-1/8 inch to 1.5 inch tapered steerer tube and a 50mm/62mm outer diameter headtube, this headset ensures smooth and reliable steering performance. Please read these instructions carefully before proceeding with installation or maintenance.

PRODUCT COMPONENTS

The FSA No.57E Orbit 1.5E ZS Tapered Headset consists of several precision-engineered components. Familiarize yourself with each part before beginning installation.



Image: Exploded view of the FSA No.57E Orbit 1.5E ZS Tapered Headset components. This image displays all individual parts included in the headset kit, such as the top cap, compression ring, upper bearing, upper cup, lower bearing, lower cup, crown race, and star nut with bolt.

Refer to the technical diagram below for specific part identification and dimensions.

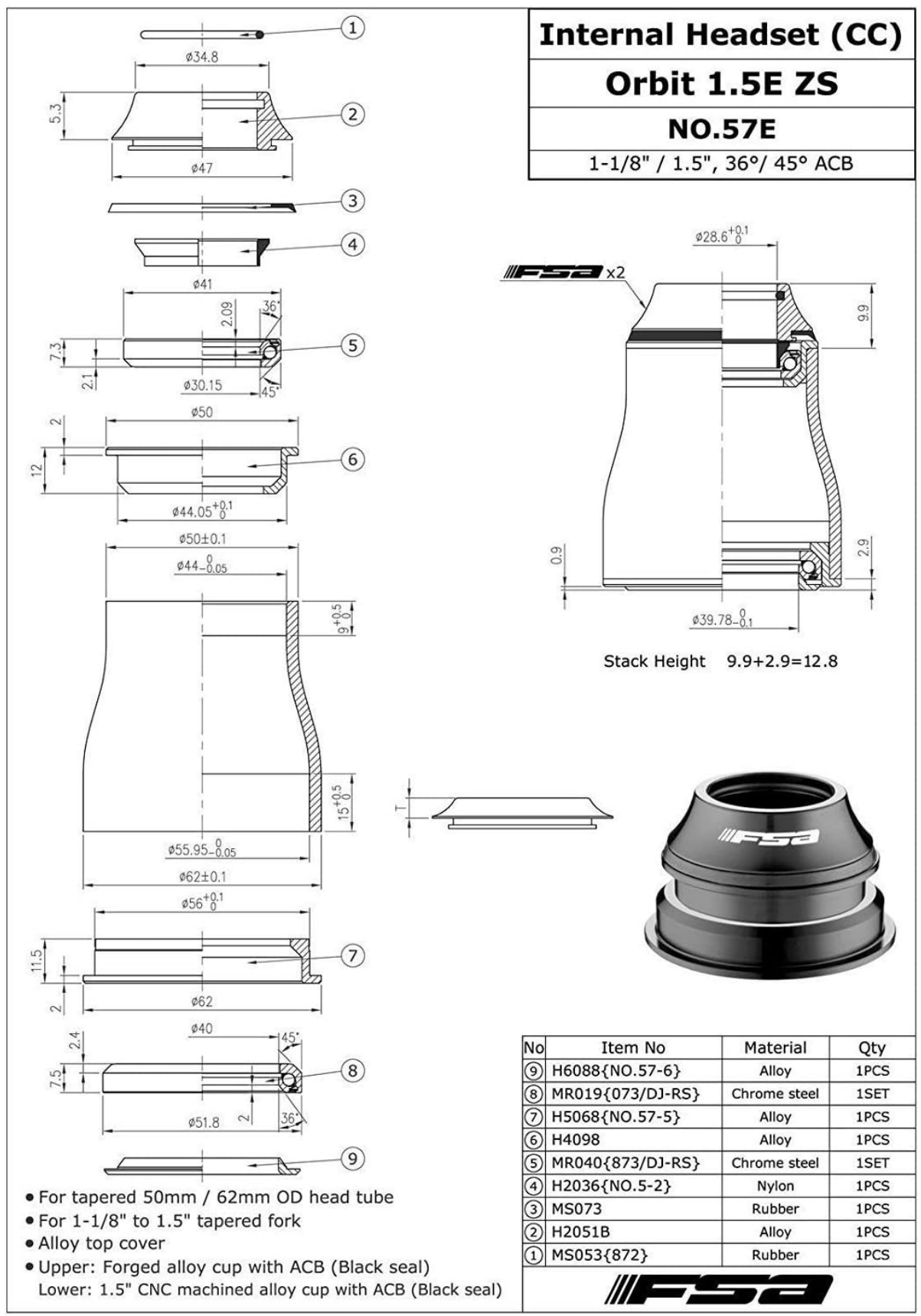


Image: Technical diagram of the FSA No.57E Orbit 1.5E ZS Tapered Headset. This detailed drawing illustrates the cross-section of the headset, showing the assembly order, individual component numbers, materials, and quantities. Key dimensions for the headtube and steerer tube compatibility are also indicated.

Component List (Referencing Diagram):

- **Item 1:** Top Cap (Alloy)
- **Item 2:** Compression Ring (Alloy)
- **Item 3:** Upper Bearing (Angular Contact Bearing, 36°/45°)

- **Item 4:** Upper Cup (Forged Alloy with ACB)
- **Item 5:** Lower Bearing (Angular Contact Bearing, 36°/45°)
- **Item 6:** Lower Cup (CNC Machined Alloy with ACB)
- **Item 7:** Crown Race (Alloy)
- **Item 8:** Star Nut
- **Item 9:** Top Cap Bolt

SETUP AND INSTALLATION

Proper installation is critical for the performance and longevity of your headset. If you are unsure about any step, consult a professional bicycle mechanic.

Required Tools:

- Headset Press
- Crown Race Setting Tool
- Rubber Mallet
- Hex Key Set (typically 5mm or 6mm for top cap bolt)
- Grease (waterproof bicycle grease recommended)
- Rag or shop towels
- Torque Wrench (recommended for top cap bolt)

Compatibility Check:

- **Steerer Tube:** 1-1/8 inch to 1.5 inch tapered fork.
- **Headtube:** Tapered, 50mm outer diameter (upper) / 62mm outer diameter (lower).

Installation Steps:

1. **Prepare Headtube:** Ensure the bicycle's headtube is clean, faced, and reamed if necessary. Apply a thin layer of grease to the inside surfaces of the headtube where the cups will be pressed.
2. **Press Headset Cups:**
 - Apply a thin layer of grease to the outer surfaces of the upper and lower headset cups (Item 4 and Item 6).
 - Using a headset press, carefully press the upper cup into the top of the headtube and the lower cup into the bottom of the headtube. Ensure they are pressed in straight and fully seated. **Do not use a hammer without a proper press tool, as this can damage the frame or cups.**
3. **Install Crown Race:**
 - Slide the crown race (Item 7) onto the steerer tube of your fork.
 - Using a crown race setting tool and a rubber mallet, gently tap the crown race down until it is fully seated against the fork crown. Ensure it is straight and level.
4. **Install Lower Bearing:** Place the lower bearing (Item 5) into the lower headset cup (Item 6).
5. **Insert Fork:** Carefully slide the fork's steerer tube through the headtube, ensuring the lower bearing seats correctly on the crown race.
6. **Install Upper Bearing:** Place the upper bearing (Item 3) onto the steerer tube, resting it inside the upper headset cup (Item 4).
7. **Install Compression Ring:** Slide the compression ring (Item 2) over the steerer tube, ensuring it sits

correctly on top of the upper bearing.

8. **Install Spacers and Stem:** Place any required headset spacers onto the steerer tube, followed by your bicycle stem. Ensure there is a small gap (2-3mm) between the top of the steerer tube and the top of the stem or uppermost spacer.
9. **Install Top Cap and Bolt:**
 - Insert the star nut (Item 8) into the steerer tube if not already present.
 - Place the top cap (Item 1) onto the stem/spacers.
 - Insert the top cap bolt (Item 9) through the top cap and thread it into the star nut.
 - Tighten the top cap bolt until all play in the headset is removed, but the steering remains smooth. **Do not overtighten, as this can damage bearings or cause binding.**
10. **Align and Tighten Stem:** Once headset play is removed, align your stem with the front wheel and tighten the stem's steerer clamp bolts to the manufacturer's recommended torque specifications.

OPERATION

A properly installed and adjusted FSA No.57E Orbit headset should provide smooth, friction-free steering without any play or looseness. After installation, perform the following checks:

- **Check for Play:** With the front brake applied, rock the bicycle back and forth. Place a hand over the headset cups where they meet the headtube. You should not feel any movement or knocking. If play is detected, re-adjust the top cap bolt (Step 9 in installation) and re-tighten stem bolts.
- **Check for Smoothness:** Lift the front wheel off the ground and turn the handlebars from side to side. Steering should be smooth and effortless, without any binding, grinding, or tight spots. If steering feels rough or binds, the headset may be overtightened, or bearings may be damaged/improperly seated.

Regularly check your headset for proper adjustment, especially after the first few rides, as components can settle.

MAINTENANCE

To ensure the longevity and optimal performance of your FSA No.57E Orbit headset, periodic maintenance is recommended.

- **Regular Inspection:** Periodically check for any play or roughness in the steering. Address any issues promptly to prevent further damage.
- **Cleaning:** Keep the external areas of the headset clean from dirt and grime.
- **Bearing Service (Annually or as needed):**
 - Carefully disassemble the headset (reverse of installation steps).
 - Clean the bearings (Item 3 and Item 5), cups (Item 4 and Item 6), and crown race (Item 7) thoroughly with a degreaser and rag.
 - Inspect bearings for any signs of pitting, corrosion, or damage. Replace if necessary.
 - Apply fresh, high-quality waterproof bicycle grease to the bearing surfaces and inside the cups.
 - Reassemble the headset following the installation steps.
- **Water Exposure:** If riding frequently in wet conditions, more frequent inspection and greasing may be necessary to prevent water ingress and corrosion.

TROUBLESHOOTING

Here are common issues and their potential solutions:

Problem	Possible Cause	Solution
Headset Play/Looseness	Top cap bolt not tight enough; stem bolts loose; worn bearings; improperly seated cups/crown race.	Tighten top cap bolt (remove play, then tighten stem bolts). Check stem bolts. Inspect and replace bearings if worn. Re-seat cups/crown race.
Stiff/Binding Steering	Top cap bolt overtightened; damaged bearings; lack of grease; improperly seated cups.	Loosen top cap bolt slightly. Inspect and replace bearings. Disassemble, clean, and re-grease. Re-seat cups.
Creaking Noise	Lack of grease between components; loose headset; stem/handlebar interface issues.	Disassemble, clean, and re-grease all contact surfaces (cups, bearings, steerer tube). Ensure headset is properly tightened. Check stem and handlebar bolts.
Rough/Gritty Steering	Contaminated or worn bearings; lack of grease.	Disassemble, clean, and re-grease bearings. Replace bearings if they feel rough after cleaning.

If you cannot resolve an issue, please consult a qualified bicycle mechanic.

SPECIFICATIONS

- **Model:** FSA No.57E Orbit 1.5E ZS
- **Steerer Compatibility:** 1-1/8 inch to 1.5 inch Tapered
- **Headtube Compatibility:** Tapered, 50mm OD (Upper) / 62mm OD (Lower)
- **Bearings:** 36°/45° Angular Contact Bearings (ACB)
- **Upper Cup:** Forged Alloy with ACB
- **Lower Cup:** 1.5 inch CNC Machined Alloy with ACB
- **Top Cap:** Alloy
- **Stack Height:** 9.9mm (Upper) + 2.9mm (Lower) = 12.8mm Total
- **Weight:** Approximately 129g (including top cap and star nut)
- **Color:** Black
- **Package Content:** 1 set/pack (OEM package)

WARRANTY AND SUPPORT

This product is supplied in an OEM (Original Equipment Manufacturer) package, which typically means it is intended for bicycle manufacturers or professional assembly. Specific warranty terms may vary depending on your point of purchase.

For warranty claims or technical support, please contact the retailer from whom you purchased this product or refer to the official FSA website for general warranty policies and contact information.

FSA Official Website: www.fullspeedahead.com

